

# Lecture 0: Introduction to market analysis and course administration



**15.011/0111 Economic Analysis for Business Decisions**  
**Oz Shy**

# Today

- Introduction market analysis and decision making
- Course specifics
- Market definition
- Competitive markets
- Consumer demand and price elasticity  
(Lecture 1)

# Why study economics?

- To understand the economic decision-making of consumers and firms
- To provide tools for making rational decisions. In particular,
- to be able to formulate profit-maximizing business strategies to become more successful managers
- To be able to predict market outcomes (prices, quantity sold, and markets)
- To evaluate (and design) government economic policy and regulations

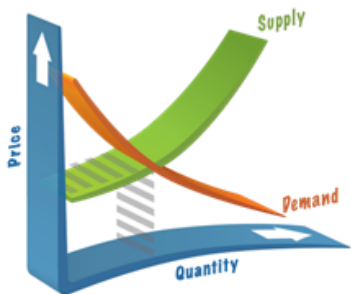
# Business decisions: Products, services, markets, technology, plant size & location

1. What to produce and for which markets:
  - a. Enter a new market? Exit from a market? (e.g., Nokia)
  - b. Versioning and quality levels (e.g., Light vs. full version, FedEx, business vs. economy classes)
2. How to produce:
  - a. Undertake new capacity investment?
  - b. Outsource or insource?
  - c. Hiring labor and other factors of production

# Economics and business decisions: Pricing and marketing

1. How to price and price menus
  - a. Compete on price or cooperate (collude)?
  - b. Quantity and loyalty discounts
  - c. Poaching prices (e.g., T-mobile “uncarrier”)
  
2. Marketing: How to sell?
  - a. Advertising expenditure
  - b. Online versus brick and mortar stores

# Course outline



## Competitive markets

Market definition  
Supply and demand  
Surplus as value prop  
Demand estimation

(Value proposition focus)

Lectures 1-6



## Strategic behavior

Market power  
Pricing  
Network economics  
Game theory

(Value capture focus)

Lectures 7-18



## Applications

Auctions  
Moral hazard  
Adverse selection

Lectures 19-21

# Course specifics



# People

- **Me:** Oz Shy
  - E-mail: [ozshy@mit.edu](mailto:ozshy@mit.edu)
  - Web: [www.ozshy.com](http://www.ozshy.com)
  - Office hours: I am around during most mornings and afternoons. E-mail me any time just to make sure that I will be at the office
  - Office: Sloan School E62-659 (6th Floor)
- **TA:** Chuan Zhang
  - E-mail: [c.zhang@mit.edu](mailto:c.zhang@mit.edu)



# Resources

- **Lectures:**
  - Be on time
  - No laptops, phones, etc.
- **Recitations (optional):**
  - Example problems
  - Attend the recitation for your own section
- **Stellar:**
  - Refer to your section site, not the general course site
  - Slides: Read slides before class and after class. One objective of these slides is to serve as a lecture summary
- **Other resources:**
  - Tutorial hours/office hours
  - Exam review sessions



# Assignments and grading

- **Readings**
  - Do before class
- **5 Problem sets (10%)**
  - Full credit for good faith effort
- **Class participation (20%)**
  - Attendance and discussions
- **Midterm (30%)** – October 19
- **Final (40%)** – TBA

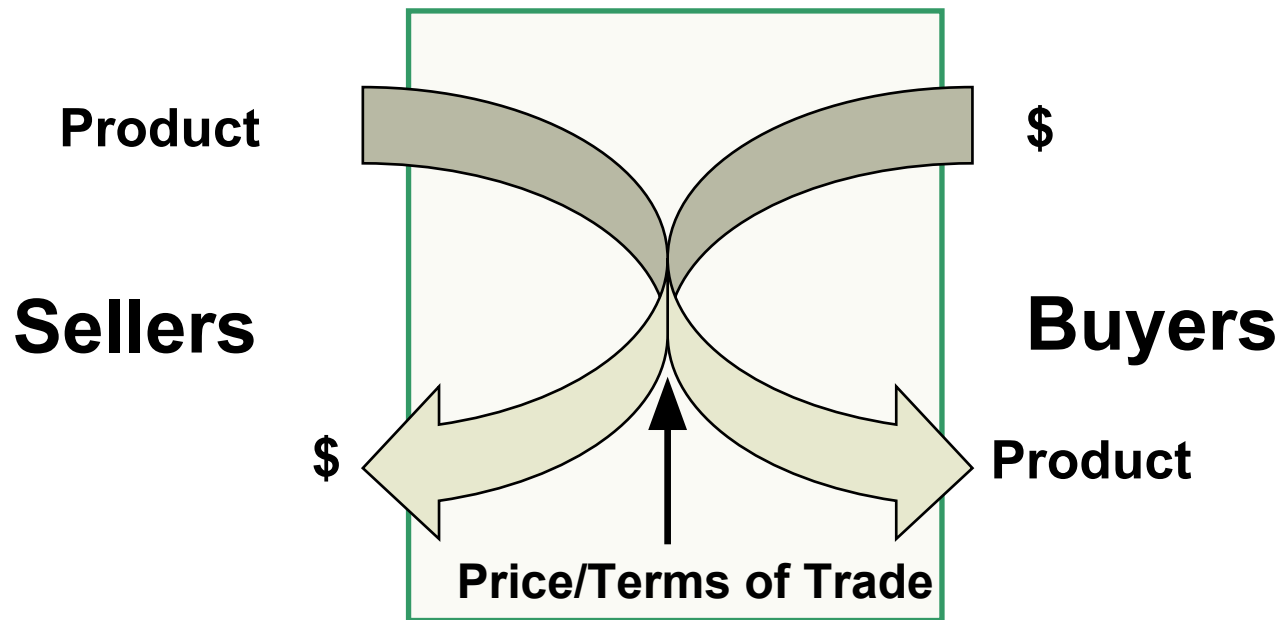
## How to succeed in this class?

1. Think about the material (economic thinking takes years to digest)
2. Try looking at the general picture, but
3. also master the technical details
4. Don't postpone anything until the week of the exam
5. Do all problem sets before and after solutions are posted
6. Reproduce all derivations yourself (only then, you can identify problems)
7. Start reading the case studies

# Market definition

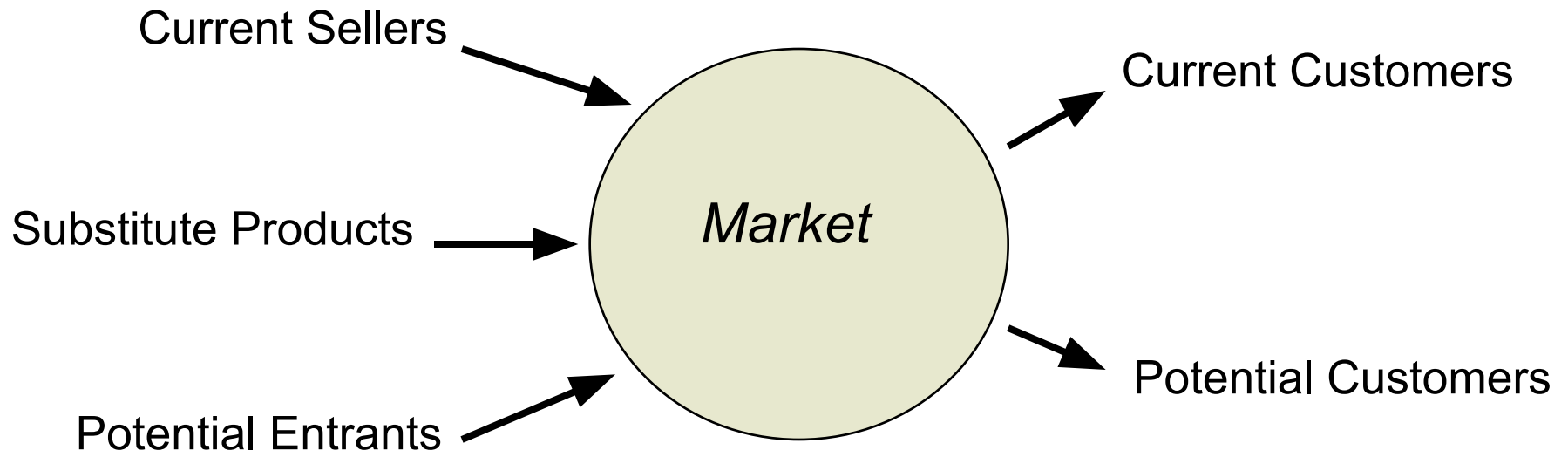


# What is a market?



A place? A website? An industry?

# What is a market?



The collection of buyers and sellers that determine the price of a set of products

# Important notes / tricks

**Demand substitutes (substitute products):** What products are similar in the eyes of buyers?

**Supply substitutes (potential entrants):** What products are similar in the eyes of sellers?

**Specific to the business question**

- Price range
- Time frame

**Gray area:** We call it product differentiation



# In the same market?

## Trek Madone 7.9



- Frame: 700 series OCLV carbon
- Fork: Madone KVF full carbon, E2 asymmetric steerer, carbon dropouts
- Wheels: Bontrager Aeolus 3 D3
- Tires: Bontrager R4 Hard-Case Lite
- Shifters: Shimano Dura-Ace STI Di2, 11 speed
- Crank: Shimano Dura-Ace, 53/39

# In the same market?

Huffy Granite



Frame: Steel

Seat: Vinyl

Gear speeds: 15

Assembly required: Instructions included

Kickstand: Yes



# Competitive markets



# Summary

**Economics provides a foundation for business decisions**

- Make better decisions
- Predict competitors' decisions

**Market definition is essential to pricing and strategy**

**Market equilibrium: predict how quantities and prices change in a market and why**

